

## CLAIMS

We claim:

- 1 1. A method for increasing the potency of an amide-linked or ester-linked local  
2 anesthetic in a patient comprising the step of,  
3 administering at least one methanesulfonamide compound with an amide-linked or  
4 ester-linked local anesthetic or combination thereof.
- 1 2. The method of claim 1 wherein said amide-linked local anesthetic is selected from the  
2 group consisting of dibucaine, articaine, levobupivacaine, ropivacaine, todocaine, lidocaine,  
3 prilocaine, mepivacaine, bupivacaine, and etidocaine.
- 1 3. The method of claim 1 wherein said ester-linked local anesthetic is selected from the  
2 group consisting of procaine, chloroprocaine, benzocaine, butamben, picrate, cocaine, and  
3 tetracaine.
- 1 4. The method of claim 1 further comprising the step of administering a vasoconstrictive  
2 substance to said patient.
- 1 5. The method of claim 4 wherein said vasoconstrictive substance is selected from the group  
2 consisting of epinephrine and levonordefrin.
- 1 6. The method of claim 1 wherein said at least one methanesulfonamide compound is  
2 selected from the group consisting of ibutilide, sotalol, E4031, dofetilide and sematilide.
- 1 7. A method of providing local anesthesia to a patient in need thereof, comprising the step of  
2 administering to said patient at least one amide-linked or ester-linked local anesthetic  
3 together with at least one methanesulfonamide compound.
- 1 8. The method of claim 7 wherein said at least one amide-linked local anesthetic is selected  
2 from the group consisting of dibucaine, articaine, levobupivacaine, ropivacaine, todocaine,  
3 lidocaine, prilocaine, mepivacaine, bupivacaine, and etidocaine.

1 9. The method of claim 7 wherein said at least one ester-linked local anesthetic is selected  
2 from the group consisting of procaine, chloroprocaine, benzocaine, butamben, picrate,  
3 cocaine, and tetracaine.

1 10. The method of claim 7 further comprising the step of administering a vasoconstrictive  
2 substance to said patient.

1 11. The method of claim 10 wherein said vasoconstrictive substance is selected from the  
2 group consisting of epinephrine and levonordefrin.

1 12. The method of claim 7 wherein said at least one methanesulfonamide compound is  
2 selected from the group consisting of ibutilide, solatol, E4031, dofetilide and sematilide.

1 13. A pharmaceutical composition comprising,  
2 at least one amide-linked or ester-linked local anesthetic, and  
3 at least one methanesulfonamide compound.

1 14. The pharmaceutical composition of claim 13 further comprising a vasoconstrictive  
2 substance.

1 15. The method of claim 14 wherein said vasoconstrictive substance is selected from the  
2 group consisting of epinephrine and levonordefrin.

1 16. The pharmaceutical composition of claim 13 wherein said at least one amide-linked local  
2 anesthetic is selected from the group consisting of dibucaine, articaine, levobupivacaine,  
3 ropivacaine, tetracaine, lidocaine, prilocaine, mepivacaine, bupivacaine, and etidocaine.

1 17. The pharmaceutical composition of claim 13 wherein said at least one ester-linked local  
2 anesthetic is selected from the group consisting of procaine, chloroprocaine, benzocaine,  
3 butamben, picrate, cocaine, and tetracaine.

- 1 18. The pharmaceutical composition of claim 13 wherein said at least one
- 2 methanesulfonamide compound is selected from the group consisting of ibutilide, solatol,
- 3 E4031, dofetilide and sematilide.